

Work Order ID 112254

January-30-14 1:54:18 PM

D 2 8 9 1 - 1

112254

Page 1

Item ID: D2891-1

Revision ID:

Item Name: Support 2.25

Start Date: 1/30/14

Start Qty: 15.00

15

Required Date: 1/30/14

Req'd Qty: 15.00

15

Reference:

Accept

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan: ML3Date: 14-01-31

QC: _____

Date: _____

Tooling: _____

Date: _____

SPC (Y/N): _____

Date: _____

Run Start

NR1

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2891

B

100

100

HAAS 1

HAAS CNC vertical machine #1

HAAS CNC VERTICAL MACHINING #1

Memo

1-Machine as per Folio FA046
2-Deburr

0.00

0.00

~~FX~~ 14/03/03

16 6

DL 14-03-05

110

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.00

~~FX~~

16 9

DL 14-03-05

120

120

QC

Quality Control

QC8- Inspect parts - second check

Memo

0.00

0.00

OK 14/03/07

16 8

Work Order ID 112254

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Page 2

Item ID: D2891-1

Revision ID:

Item Name: Support 2.25

Start Date: 1/30/14 Start Qty: 15.00 ***15***

Required Date: 1/30/14 Req'd Qty: 15.00 ***15***

Reference:

Accept

N900040100

Setup Start ***NS1***

Stop ***NS2***

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____

QC: _____ Date: _____

Tooling: _____ Date: _____

SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

130

HandFXtube

Hand Finishing Crosstubes

Memo

Per note 8 on page 1 of dwg D2891, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg. 24H of cure time.

0.00

0.00

16

Ø

Ø

14-3-13

140

140

QC

Quality Control

QC3- Inspect Part Finish

Memo

0.00

0.00

DAS
16
9-89

14/03/14

4/6

170

170

Packaging

Packaging

Identify as per dwg & Stock Location: LG52

Memo

0.00

0.00

16

Ø

Ø

14-3-14

Work Order ID 112254

January-30-14 1:54:18 PM

112254

Page 3

Item ID: D2891-1

Revision ID:

Item Name: Support 2.25

Start Date: 1/30/14 Start Qty: 15.00 ***15***Required Date: 1/30/14 Req'd Qty: 15.00 ***15***

Reference:

Accept

N900040100Setup Start ***NS1***Stop ***NS2***

Cust Item ID:

Customer:

Approvals: Process Plan: _____ Date: _____

QC: _____ Date: _____

Tooling: _____ Date: _____

SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***Sequence ID/
Work Center IDOperation
Description

180

QC21- Final Inspection - Work Order Release

180

QC

Memo

Quality Control

Set Up/
Run Hours

0.00

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

MLS 14-03-17

① 14-03-17

Picklist Print

January-30-14 11:24:41 AM

Page 1

Work Order ID: 112254
 Parent Item: D2891-1
 Parent Item Name: Support 2.25

Start Date: 1/30/14 Required Date: 1/30/14
 Start Qty: 15.00 Required Qty: 15.00

Comments: IPP C02.11.26Added P/OKJ
 IPP D 08.03.19 Re-format EC verified: DD
 rev.B DD verf:EC

IPP Rev:E 11.08.04 as per dwg

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

DSK076
 D2891-1 Turning Detail

Manufactured No

110 Each 11.0000 0.5 8

Location

Loc Qty

Loc Code

MAT060

11

104460

1

107882

10

13311

8

FK 14/03/03

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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DART AEROSPACE LTD		Work Order:	112254
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.189	.189	.189	.189	.189
AB	0.240	0.260		.245	.246	.246	.247	.246
AC	0.115	0.150		.125	.124	.124	.124	.125
AD	0.040	0.060		.051	.054	.049	.049	.051
AE	0.010	0.020		.015	.015	.015	.015	.015
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.137	.137	.136	.137	.131
AI	0.454	0.474		.466	.465	.464	.464	.466
AJ	2.779	2.789		2.781	2.782	2.780	2.780	2.782
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.036	1.033	1.033	1.034	1.036
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.259	.259	.259	.259	.259
AO	1.663	1.683		1.677	1.677	1.674	1.675	1.677
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: DP Date: 14-03-4

Audited by: amx Date: 14/03/07

Preliminary Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order:	112254
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	27	38	49	510
HAAS Section								
AA	0.188	0.193		.189	.189	.189	.189	.189
AB	0.240	0.260		.247	.247	.246	.245	.246
AC	0.115	0.150		.125	.124	.124	.127	.127
AD	0.040	0.060		.0515	.050	.050	.050	.050
AE	0.010	0.020		.015	.015	.015	.015	.015
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.138	.137	.137	.138	.137
AI	0.454	0.474		.4655	.463	.463	.462	.465
AJ	2.779	2.789		2.785	2.780	2.780	2.781	2.781
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.036	1.034	1.036	1.040	1.040
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.259	.257	.259	.259	.259
AO	1.663	1.683		1.678	1.675	1.675	1.677	1.674
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: *DP* Date: 14-03-04

Audited by: *cmf* Date: 14/03/07

Preliminary Approval: Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order:	112254
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.189	.189	.189	.189	.189
AB	0.240	0.260		.246	.245	.247	.246	.251
AC	0.115	0.150		.124	.125	.125	.124	.125
AD	0.040	0.060		.0515	.052	.049	.049	.050
AE	0.010	0.020		.015	.015	.015	.015	.015
AF	0.240	0.260		.250	.250	.250	.250	.250
AG	0.290	0.310		.300	.300	.300	.300	.300
AH	0.115	0.150		.138	.139	.137	.138	.139
AI	0.454	0.474		.4655	.466	.467	.465	.464
AJ	2.779	2.789		2.784	2.783	2.783	2.784	2.780
AK	0.240	0.260		.250	.250	.250	.250	.250
AL	1.002	1.042		1.033	1.034	1.036	1.036	1.036
AM	0.053	0.073		.063	.063	.063	.063	.063
AN	0.257	0.262		.259	.259	.259	.259	.259
AO	1.663	1.683		1.678	1.679	1.678	1.677	1.676
AP	0.053	0.073		.063	.063	.063	.063	.063
AQ	0.022	0.042		.032	.032	.032	.032	.032
AR								
AS								
AT								
Accept/Reject								

Measured by: DR	Date: 14-03-05
Audited by: [Signature]	Date: 14/03/07
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	[Signature]

DART AEROSPACE LTD		Work Order:	112254
Description: Ø2.250 Support		Part Number:	D2891-1
Inspection Dwg: D2891		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.188	0.193		.189				
AB	0.240	0.260		.246				
AC	0.115	0.150		.124				
AD	0.040	0.060		.0515				
AE	0.010	0.020		.015				
AF	0.240	0.260		.250				
AG	0.290	0.310		.300				
AH	0.115	0.150		.137				
AI	0.454	0.474		.4655				
AJ	2.779	2.789		2.784				
AK	0.240	0.260		.250				
AL	1.002	1.042		1.034				
AM	0.053	0.073		.063				
AN	0.257	0.262		.257				
AO	1.663	1.683		1.670				
AP	0.053	0.073		.063				
AQ	0.022	0.042		.032				
AR								
AS								
AT								
Accept/Reject								

Measured by:	DR	Date:	14-03-05
Audited by:	amf	Date:	14/03/05
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	08.04.21	Reformat	KJ/JLM	
C	12.09.26	Dwg Rev updated	KJ	

NOTES:

1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
MIN UTS = 170 KSI (38 HRC)
(REF DART SPEC. D6104)

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 (REF X.XXX = ± 0.010) UNLESS OTHERWISE NOTED

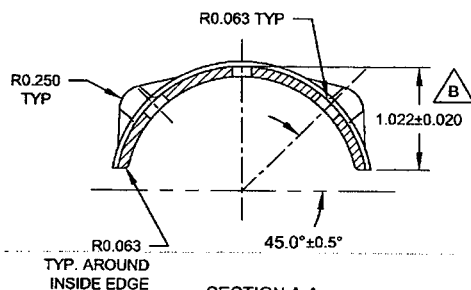
4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

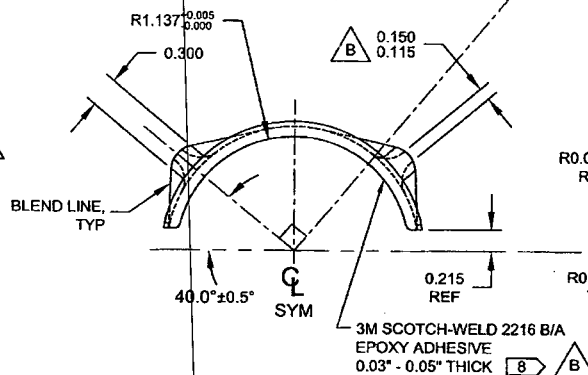
6) IDENTIFICATION: DART LOGO (PER DART SUPPLIED GRAPHIC) AND PART NUMBER IN THIS AREA WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP, PER DART QSI 044 6.3.

7) WEIGHT: 0.38 lb

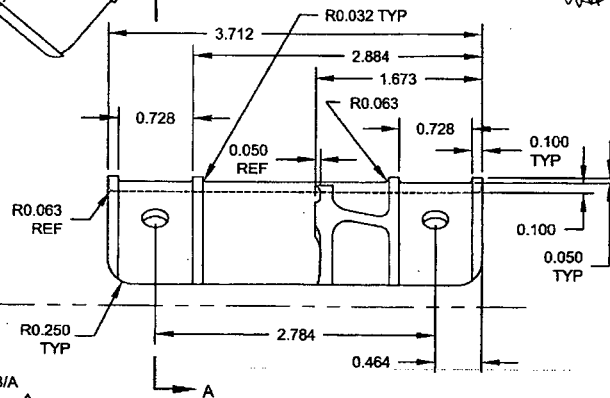
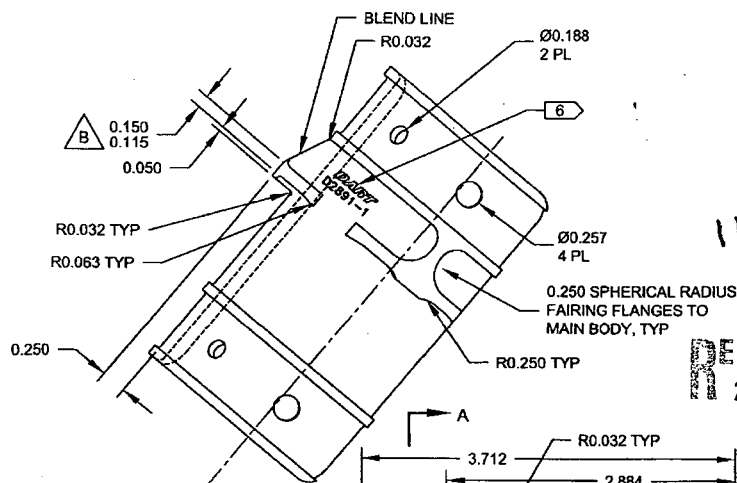
8) FOR THE ENTIRE INNER CONCAVE SURFACE:
ABRADE SURFACE WITH 400-GRIT SANDPAPER. REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY 0.03" TO 0.05" THICK LAYER OF 3M SCOTCH-WELD 2216 B/A ADHESIVE TO MATING SURFACE OF SUPPORT. ALLOW TO CURE FOR 24 HOURS.



SECTION A-A



D2891-1 SUPPORT



B	RMV FINISH, ADD 3M 2216, ADD H925 MAT'L OPTION, UPDATE TOLERANCE (ZN D4-1, B4-1, B5-1)	CP	11.07.15
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.07.15		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D2891
TITLE Ø2.250 SUPPORT
REV. B
SHEET 1 OF 1
SCALE NTS

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112254 MLJ
(4-01-31)
RELEASED
2011-07-28